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# **Criticality's Affective Entanglements: Rethinking Emotion and Critical Thinking in Higher Education**

# **Criticality's Affective Entanglements: Rethinking Emotion and Critical Thinking in Higher Education**

Critical thinking is often understood as a set of tangible, transferrable and measurable skills and competencies. Yet it is an intensely affective experience that it is complex, contingent and contextualised. Using interview, focus group and observation data conducted with 15 first-year undergraduate social-science students at a UK research-intensive university, this paper explores how students negotiate the complex knowledge practices that constitute critical thinking, particularly the affects of being and becoming critical. The theoretical tools offered by Karen Barad and Sara Ahmed allows a conceptualisation of critical thinking as a complex phenomenon of socio-material and affective practices. This paper turns to Barad and Ahmed to explore the potential of their clashing theorisations for thinking through the affective territories of critical thinking. It will argue that acknowledging the way(s) critical thinking feels (as well as what it is and what it is for) opens up new imaginaries for feminist scholarship about criticality.

Keywords: critical thinking; higher education; students; affect; materialities; embodiment; feminism

## **From rationality to entanglement: rethinking critical thinking**

Critical thinking is closely aligned with the 'higher' in higher education, representing a diverse set of knowledge practices involving in-depth questioning and academic debate that have come to characterise the values and value of university graduates. Whilst deeply embedded in the institutional meta language of teaching and learning in higher education, this seemingly neutral and transparent intellectual value has multiple meanings and enactments (Moore, 2011). While a 'correct' definition does not exist, this does not follow that 'all conceptions of critical thinking are equally good or defensible' (Bailin et al., 1999, p.286). For example, the notion of critical thinking as a process of systematic rationalisation of thoughts and the application of intellectual standards to problems (e.g. Paul and Elder, 2006) positions critical thinking as an

instrumental knowledge transaction, with ‘critical beings’ (Barnett, 1997) as the knowing foci of criticality. Here, critical thinking becomes a decontextualised and individualised act of ‘reasoned’ bodies, rather than a social practice (Mitchell et al., 2004), embedded in the contexts and relations in which it takes place. Consequently, this paper describes how the experience of critical thinking shifts in accordance with the social, embodied and relational contexts in which one is entangled at any particular moment.

Furthermore, discourses of critical thinking as a skill also proliferate in literature about critical thinking: from theories of criticality (e.g. Halpern, 2003), study skills guides (e.g. Fisher, 2001, Cottrell, 2011) and within higher education pedagogies (e.g. Leicester, 2010). Yet, as Papastephanou and Angeli (2007) discuss, ‘skill’ assumes something tangible, transferrable and measurable, whereas in practice the acquisition of certain skills is complex and contextualised. For example, Lauder (2009) outlines how skills can act as positional goods in the knowledge economy, subject to inflation and competition between different groups. Furthermore, Morley et al. (2006) discuss how critical thinking is part of discourses of graduate ‘soft’ interpersonal skills, which is highly gendered, as well as devoid of understanding of the social capital informing dominant styles of communication. Indeed, the figure of the critical thinker is rarely subject to analyses of difference – such as who these critical beings are, how they came to be seen as critical and how critical bodies are unequally positioned and reproduced in higher education. Rather than critical thinking representing a cognitive act by reasoned, detached bodies, this paper discusses how it emerges both through the web of social, material and discursive knowledge practices that constitute criticality and with the different bodies that enact it.

Thinking about critical thinking is not new. Pithers and Soden (2000) in their literature review of research into critical thinking state that concept has been (and is likely to continue to be) heavily theorised within educational research, prompted by attempts to better understand how to engage students in critical practices. So what potential is there to explore other ways of thinking about criticality? Fenwick and Edwards (2013), in their account of critical thinking as a network of interrelated knowledge practices, contend that socio-material analyses of pedagogies allow us to focus more deeply on entanglements of unequal power such as ‘when particular accounts become more visible or valued, how they circulate and what work they perform in their process’ (p.35). The term socio-material refers to specific theorisations of the world as not being simply produced through, or defined by, social relations or linguistic codes, but entangled with the material or the stuff of things. Such ‘materialist’ thinking about pedagogy reimagines critical thinking beyond accounts that focus on the individual in a disembodied and decontextual manner, towards interpretations that focus on the interconnections between critical thinkers and their context and the acts of boundary making that constitute practices of criticality and what and who they include/exclude.

Furthermore, reimagining criticality through specifically feminist engagements with relations, affects, bodies and materialities, as is the focus of this special issue, allows us to ask a different set of questions about how critical thinking is conceptualised, embodied and performed. Firstly, applying feminist scholarship to what is often seen as a gender-neutral subject addresses the ways becoming a critical thinker is entangled within unequal gendered, classed and racialised hierarchies of knowledge production and circulation. Secondly, a focus on critical thinking as an affective and bodily process shifts emphasis away from masculinist conceptions of the rational

knowing subject to imaginaries which pay more attention to the role of the senses in higher education pedagogies – further chipping away at the binary that persists between thoughts and feelings. Consequently, in my research I ask: What are the affects of becoming critical? How do these affects circulate around and through bodies and educational institutions and practices? Do some bodies become more visible or valued as critical than others within educational spaces and places? Such questions move beyond mapping what critical thinking is, but instead focusing on what it does.

This paper firstly focuses on the ways critical thinking feels and the feelings it produces - the ‘affective intensities’(Ringrose and Renold, 2014) of becoming a critical thinker in higher education. I turn to Karen Barad’s feminist agential realism (2003, 2007, 2011, 2012), particularly her concepts of phenomena and intra-action, to explore critical thinking as an entangled socio-material-discursive knowledge practice, which reproduces intense affects. I then bring in Sara Ahmed’s theorisations of the circularity of affect (2004, 2010, 2012, 2014a, 2014b, 2014c), particularly her concept of the feminist killjoy (2010, 2014b), before discussing how the clashes in their work are productive for thinking about critical thinking. Finally, I briefly consider how such theorisations of criticality might open up feminist pedagogical and philosophical imaginaries that refocus attention on how critical thinking feels (rather than simply what it is and what it is for).

## **Methodology**

The data, which informs and illustrates this paper, is drawn from research with first-year undergraduates at a UK research-intensive university. I chose to work with first-year students because they are important foci of research into student learning in higher education (Harvey and Drew, 2006, Yorke and Longden, 2008). More specifically, I

wanted to demonstrate how critical, insightful and intelligent first-year students are, as a challenge to notions of learnification which tend to infantilise students and position lecturers in loco parentis (Holmes, 2004, Biesta, 2014) and to speak back to the emergent discourses of students as consumers (Williams, 2013), whose focus is instrumental credit accumulation.

Students from two discipline cohorts were studied (henceforth described as an academic and a professional social science). This enabled an analysis of the specific divisions between vocational and non-vocational subjects and whether these ends influence the construction of different means of knowledge production. Macfarlane (2014) argues that vocational subjects and their emphasis on developing workplace behaviours and values are linked with the rise of student performativity. Evans (2004) connects such neo-liberal demands for students to continually engage in surface ‘performances’ of learning have led to the ‘death’ of critical thinking in higher education. Therefore, studying related yet different cohorts was intended to explore the subtle ways in which differential contexts reproduce discourses of criticality, the affects produced as students engage with these disciplinary critical pedagogies and how these relate to broader arguments about the significance or presence of critical thinking in the 21<sup>st</sup> century global academy.

Within these two cohorts, I conducted loosely structured participant classroom observations in a compulsory module for each cohort from October- December 2013. Guiding themes for the observation included the pedagogical, social, moral and political discourses of critical thinking and how students responded to these ideas amongst their peers. In October and November 2013, I interviewed 15 students (7 from the academic and 8 from the professional cohort). Questions were focused around students’ initial thoughts about university study; their understandings of critical thinking; how they were taught to be critical; what being critical felt

like and their views on how it related to their studies, wider lives and future careers. Finally in May 2014, I conducted a focus group with 4 students. This focused on discussing 4 case study examples of women engaging in public acts of critical thinking. These various research encounters intended to broadly explore students' initial engagements with, and responses to, practices of critical thinking at university and their reflections on the role of critical thinking in their lives and futures.

MacLure (2011) describes qualitative research as being in ruins, in that despite post-enlightenment critiques recognising the provisional and partial nature of truth, it is 'hard to escape interpretive mastery and narrative coherence' (p. 998) when doing empirical work. I am inspired by Jackson and Mazzei's (2012) notion of working within the limits of such empirical practices and continuing to explore the 'something else' (p. ix). This constitutes a refusal to present 'voices' unproblematically and an analytic manoeuvre to see the 'constitution and emergence' (p. ix) of data, rather than its simplistic capture, selection and representation. Consequently, notions of thinking with the data are used to illustrate the proliferation of ways that meaning is made and the multi-layered processes of analysis, as well as the emergent possibilities that come from 'plugging in' theory with research data (Jackson and Mazzei, 2012). The use of 'with' rather than 'about' is testament to the way analysis is not separate from the researcher but is co-produced in its doing. What follows is an attempt to think with critical thinking's affects as articulated in the research data.

### **Critical thinking and its affects**

While the research produced a number of findings – including the dominance of economic vocabulary for articulating critical thinking's purpose and direction and how the figure of the critical thinker gets imagined through normative classed, raced and gendered images about students - this paper focuses specifically on the *affects* of being



critical. Being, speaking and doing criticality in educational contexts produces affects that circulate through bodies. The students in the research did not simply do critical thinking- they felt it. Indeed, critical thinking was always an affective experience of some kind, even if it seemed tempered or even neutral. These feelings were not simply emotional reactions to isolated performances of critical thinking (such as feeling happy about receiving a good mark for a critical essay or feeling nervous about engaging in classroom debate). Students articulated the complex affects they felt in response to critical thinking's discourses and practices.

For example Bronwyn, a student from the professional cohort, talked in our interview about feeling the need to contain her criticality in appropriate spaces, because of a fear of criticality's negative affects upon her social relations:

It's not like I have to blurb it all out when they're not asking for an opinion...obviously you don't want to keep blabbing it off all the time when you are with your family. (Bronwyn, Interview)

The use of the phrase 'blabbing' imagines critical thinking as a reactive bodily response rather than, say, a process of purely cognitive 'reason'. Her quote is also testament to the ways critical voices can get positioned as 'noise', if articulated in inappropriate spaces, or by inappropriate bodies. For example, the notion of not taking up too much space is specifically gendered in relation to notions of feminine submissiveness. Yet earlier in our interview Bronwyn spoke of been keenly aware of her professional responsibility to be critical, as well as the relationship between demonstrating critical thinking and getting good grades in her degree. The affects of being critical were intimately tied up with becoming a successful student and with discourses of student performativity as demonstrated through academic assessment and professional competencies. There was a sense in which students like Bronwyn were feeling their way

through these conflicting affects and that such affects were not just bodily but social, discursive and relational.

Such affects were revealed both in the words students used to describe their feelings about critical thinking, as well as in the anxieties and excitements fluttering through such discussions and observations. Clough and Halley's (2007) description of affect as meaning 'felt aliveness given in bodily capacities to act, engage and connect' (p.2) resonated through the data. Critical thinking's affects appeared to flow, to be produced in relation to others, things and bodies and reveal itself through specific moments or 'affective intensities' in the data (Ringrose and Renold, 2014). This drew me closer towards theorists that could help unpack the vibrancy of critical thinking's affects.

### **Critical thinking as entangled phenomena**

The theoretical tools of material feminism offers a philosophy, politics and method that 'refuses the linguistic paradigm, stressing instead the concrete yet complex materiality of bodies immersed in social relations of power' (Braidotti, 2012, p. 21). Such theories emerge alongside a theoretical shift towards post-human thinking about the world, where bodies are reconceptualised not as independent free agents but as emerging through the entanglement of social, discursive and material practices. In education specifically, such theories offer a way of looking at how students, academics, institutions and pedagogies are co-constituted and entangled, shifting focus away from individualised acts of knowing to multiplicities, processes and flow (Taylor and Iverson, 2013). Such philosophies, specifically the work of Karen Barad, provide the means to get to grips with how students negotiate the multiple discourses of what it means to be critical, as well as the way criticality's affects work through, and impact upon, bodies.

According to Barad (2007) the world is made up of phenomena, that are assemblages of the human-material-discursive. Critical of the 'excessive power granted to language to determine what is real' (2007, p.133), Barad wrestles matter (or the stuff of things) to the fore, where it can occupy deserved conceptual space and push against the centrality and dominance of the human within social research. She calls her work agential realism, to account for the ways matter has a specific vibrancy, a capability to affect and be affected, thereby calling into question dualisms between nature/culture and subjects/objects. Hers is a deeply materialist philosophy, with a focus on becoming, where phenomena do not pre-exist but emerge through intra-action, defined as:

The mutual constitution of entangled agencies. That is, in contrast to the usual 'interaction', which assumes that there are separate individual agencies that precede their interaction, the notion of intra-action recognises that distinct agencies do not precede their interaction, but rather emerge through their intra-action.  
(Barad, 2007, p. 22)

What characterises Barad's work apart from the re-invigoration of the world of the material, is her radical rethinking of how boundaries of what we are, what we know and how we know get produced with the vibrancy of our world as an entangled becoming of material, social and discursive practices. It is this flow, this attention to boundary making/breaking that compels me towards what can be, for non-scientists, a conceptually difficult philosophy.

Understood as a Baradian phenomenon, critical thinking (and its affects) are a set of historically and socially situated discursive, embodied and material knowledge practices. As Fenwick and Edwards (2013) state, critical thinking is not a fixed notion but sustained by 'multifarious capillaries of associations and action' (p.37) of texts, materials and bodies. Such a conceptualisation is exemplified in the research data. For example, in one class I observed, the professional cohort were asked to sign a student

code of conduct, committing themselves to certain values and behaviours, including being a critical thinker. By dedicating a specific moment in class for students to read and physically sign the code with the group as witness, the material intra-action of pen, paper and silence took on a symbolic nature. It simultaneously created a discursive boundary that situated critical thinking within a set of specific disciplinary values. The act of signing and thus committing to becoming a (critical) student was also reliant on inscribed social relations; such as the authority the tutor had to position critical thinking as a desired characteristic for their students and the way students positioned critical thinking subsequently as the right and good thing to do to become academically and professionally successful.

This example reveals several things about student criticality. Firstly, in that moment critical thinking was material (the signing of a contract), social (produced within pedagogic and peer relations) and discursive (related to discourses of student success and professional competency). This also produced specific affects, including the desire for students to become good students and professionals, as constituted through a set of disciplinary specific values and behaviours, as well as a sense of intensity and gravitas induced by the act of silent contract signing. The simultaneous material-social-discursive nature of critical thinking in the classroom challenges its historicised position as a practice of 'reasoned' bodies engaged in cognitive battling and instead offers new philosophical imaginaries that recognise both the situated place of the human within practices of thinking and that the human might not be the only, or the most important, force at work. Furthermore, because what constitutes critical thinking emerges through the material-social-discursive, it is always a contingent act of becoming as bodies move through different assemblages. This challenges the notion that one simply 'masters' critical thinking, or that it means the same thing across a range of settings. A Baradian

analysis positions critical thinking as not simply a cognitive act that is ‘done’ but a set of entangled material-discursive-social practices that emerge intra-actively through and within the space of higher education

In highlighting the complex and contingent nature of critical thinking and its affects, a Baradian analysis also gives recognition to the way students negotiate and are part of the often conflicting, affective discourses of critical thinking. In all of the student interviews, criticality’s affects were experienced as both intensely positive and negative. For example, Jodie relates critical thinking to its negative etymology:

If I heard the word critical thinking I think bad feelings, bad words - like fiery and abrupt and things spring to my head because critical is associated with other words that have critical in, like critically ill, in a critical condition. (Jodie, Interview)

The use of the metaphor of being critically ill also underlines the intrinsically bodily processes of critical thinking and its affects (consumption). This quote also typifies the conceptual closeness between negativity and criticality; it felt troubling (bad words) and could be troublesome (fiery and abrupt). Similarly, during one academic observation a student remarked that ‘*we don’t have anything critical to say, we really liked it*’. Here, liking something and being critical of it felt oppositional. A critical thinker was imagined as someone incredibly serious, who always found fault and who always saw the worst. Students expressed fears that this way of being could be time consuming, emotionally troubling and socially isolating. Yet when I asked if it was important to do it, they all said yes. To them, being a critical thinker also held the promise of personal and social transformation – into the right kind of student, the right kind of professional or a better kind of person:

You can be a bit more willing to listen to other people’s approaches. Instead of there being such extremes like ‘I’m right, you’re wrong and there is nothing else to

say about it'. You become a bit more compassionate, a bit more humble, not humble you know what I mean, a bit calmer about what people have got to say and you are willing to listen to everyone's point of view. (Carly, Interview)

Being critical was heavily invested with positive affective ideals that again, highlighted bodily processes such as being calm and quiet. So while critical thinking did not always feel good, the positive consequences, particularly within an academic context, made it worthwhile and desirable.

Students appeared to be entangled within these mixed, yet intense, feelings: on the one hand desiring the transformative power of criticality whilst also wishing to disassociate themselves from its negativity. The affective intensities of critical thinking were therefore not linear or straightforward. It could feel good and bad at the same time and these feelings shifted and were constructed in relation to broader affective investments such as the desire to perform as a successful student. For students like Carly and Jodie, affect flowed 'in and from' becoming critical, mirroring Barad's work on both the vibrancy of phenomena (Barad, 2012a) and the chaotic entanglement of meaning and matter in the ways bodies are intra-actively produced (Barad, 2012b). A Baradian analysis recognises that pedagogical phenomena – such as critical thinking – are not simplistic processes of cognitive cause and effect but entangled processes of becoming critical which are complex, contingent and produce conflicting affects.

Furthermore, Barad's work on the vibrancy of matter (2003), which 'feels, converses, suffers, desires, yearns and remembers' (2012a, p.48) opens up new imaginaries to explore how critical thinking, in its becoming, does something to bodies. In our interview Becky, a student from the academic cohort, positions critical thinking as being a crucial part of being seen as a successful student yet worries that her criticality is spreading from the classroom to her living room, influencing things such as the way she watched TV:

You have to be careful not to just assume the worst in everything, to think about it, to not just let it consume you. (Becky, Interview)

Becoming the 'right' kind of critical for Becky involves work to contain the potential overwhelming negativity it may produce if left unchecked. Becky's fear of criticality spreading and the word 'consume' depicts critical thinking almost as an organic flow that attempts to contain in appropriate spaces and places. In this sense criticality has a material presence in its ability to affect change by 'consuming', notions also reflected in Jodie's earlier quote. Therefore are engaged in a continual, dynamic act of being affected by critical thinking and reproducing critical thinking affective intensities. Becky is situated within, and feels her way through, the affects of becoming a critical being and intra-actively creates boundaries around appropriate affective engagements of being and becoming critical. This policing of boundaries by students themselves and concern about the seepages from one 'territory' to another also indicate how being critical can involve movement into a different set of affective entanglements or relationships.

Barad provides multiple tools to explore the vibrancy of critical thinking as human-material-discursive phenomena. Firstly, her work on how phenomena intra-actively materialise - what they do, not just what they are - leads me to analyses of what critical thinking as an entangled phenomenon of knowledge practices does and specifically the conflicting and intense affects it produces as it circulates through higher education. Furthermore, the notion that things do not pre-exist but emerge through the intra-action of socio-material practices also reimagines criticality as practice in flux that comes to be through an institution, its discourses and its bodies, as typified in the example of signing a critical thinking contract, rather than a fixed set of a priori knowledge or behaviours possessed by individual, reasoned bodies. Yet in thinking

through the ways affect sticks to bodies within educational institutions, I am drawn towards Sara Ahmed's theorisations that explore how critical thinking's affects are historically and socially situated and reproduced.

### **Sticking places**

Sara Ahmed's feminist theorisations (2004, 2010, 2012, 2014a, 2014b, 2014c) are powerful for thinking through what behaviours, values and gestures becomes routinised as critical thinking, what it means to take such gestures for granted and how practices of critical thinking become affectively invested as 'happy objects'. Her work on the circularity of affect (2010) helps me think about the way practices of critical thinking circulate and stick to certain bodies and the implications of this for specific (for example feminised) bodies being reproduced as (il)legitimate critical beings.

Becky's concern about voicing her criticality in the right place and space, to not let it consume her, suggests that there are complex social contexts that constitute when critical thinking feels good. As Ahmed (2010b) discusses in her theorisation of affect and happy objects, what feels good for us is socially constructed and reproduced. She states that happiness is an orientation towards objects (which can be feelings, people, atmospheres or places) and that such objects make us feel good because they are already prescribed as being good for us. Thus affect is contagious and shared and the good life is 'the life that is lived in the right way, by doing the right things again and again' (Ahmed, 2010, p. 36). Conversely, we become alienated when we do not 'experience pleasure from proximity to objects that are attributed as being good' (p. 41). This is not a happy/unhappy binary but a continual remaking of our affective investments through our social relations and our bodily engagements with the world.

For example, critical thinking is attributed as a 'happy object' within university spaces, when it is reproduced via the normative discourses of 'successful' student-hood.



However, what it means to be successfully critical was differently positioned, via the pedagogies and values of the professional and academic disciplines, with the former emphasising more abstract ideology critique of texts and the latter focusing more on reflecting on the self and its place in the world. Although there is little space to describe these differences in detail here, becoming critical was closely related to academic socialisation and could be successfully demonstrated by engaging with, often disciplinary specific, values and behaviours. As Rob, an academic student, states in our interview: 'I suppose it felt kind of natural, something you should do when studying Academic'. For Rob, it felt good to get it 'right', to be a 'natural', as emphasised in his use of should. Similarly, criticality was reinforced by the response of lecturers as an emergent attribute of 'good' students:

Reema said nervously 'I'm probably being really opinionated but...'. Kathryn (the lecturer) interjected 'don't apologise, you should be opinionated in critical thinking, this is really good'. Reema smiles, the mood lightens. (Academic observation – emphasis mine)

Reema's criticality becomes positively reinforced and she appears to feel good as a result. Thus positive feelings circulate around critical thinking as a happy object and those who perform criticality 'legitimately' become positive examples through their praise as successful critical bodies in the university classroom. Furthermore, the lecturer's 'approval' of Reema for being opinionated perhaps also points to performative notions of students learning how to be the 'right' kind of critical student and 'play the game' (Macfarlane, 2014).

Conversely, being too critical or too opinionated in inappropriate spaces and places held the risk of being seen as someone who unhappily complicates life with their 'bad' feelings:

The lecturer talked about becoming a student and its effects on your relationships with your friends and family and if you talked to your partner all the time about being critical that 'it can be quite an irritating habit' and 'you might end up very lonely' if you keep saying 'what's the evidence base/bias/other perspectives'. It might be best to '*do it in your head*'. (Professional observation – emphasis mine)

The second example relates being critical to social relationships, suggesting too much of it in the wrong space and place might make you unpopular. While this narrative alludes to the demarcation of criticality to academic spaces and voices, it is also about how the circulation of affect through pedagogical and social relations reproduces critical thinking as a happy/unhappy object. The affective consequences of being critical create a conceptual link between the happy object of the legitimate critical voice and the unhappiness of being a killjoy. Importantly this is not a fixed happy/unhappy binary because, as described earlier, students simultaneously are invested in critical thinking's positive and negative affects. However, to be 'good for us' and to feel good, criticality becomes boundaried into specific spaces, places and bodies.

For example, Becky describes how becoming a critical thinker required the adoption of critical characteristics such as being '*miserable and different*'. Fears of embodying 'critical' in ways that seep into unhappy affective territory relate to Ahmed's (2010, 2014a, 2014b) theorisations of the affective tensions of occupying counter hegemonic spaces. A powerful example she gives is the feminist killjoy - one who disrupts the comfortable and who refuses to join conventions of happiness in the same way:

Feminist killjoys too: how often we ruin an atmosphere. To become assigned a killjoy is to be the cause of the loss of shared merriment. When we willingly receive this assignment, we are willing to be this cause, which is not the same thing as making this cause our cause. We learn how histories are condensed in the very

intangibility of an atmosphere, or in the tangibility of the bodies that seem to get in the way. (Ahmed, 2014a, no page)

Ahmed articulates the way criticality as a gesture is reproduced through specific histories that position certain bodies such as the feminist and queer critical voice as being affectively troublesome. This is reflected in the words of Ellie (from the professional cohort) and Camille (from the academic cohort):

I think my sister... is quite trusting. Yeah maybe, gosh, I don't trust anyone. My sister...does obviously think critically about certain things. But she is far more open to, kind of, being told the information and this is what I've said and this is what I've seen so that's how it is. Whereas I'm more likely to be saying 'well... have you looked at this avenue and have you looked at this'. She said to me 'oh you are just making life far more complicated'. (Ellie, Interview)

Because if you have your own ideas then obviously people have their own ideas as well so you might lead to conflict with others' ideas...you don't want to show off too much because then you might like ruin you friendships or the relationships you have with others. (Camille, Interview)

While being critical allowed Ellie to see more and to see differently, it required her to adopt an attitude of suspicion towards others and their ideas. She constructed herself as an over-thinker, drawing on the troublesome persona of the killjoy in contrast to the happy naivety of her sister. Camille was also acutely aware of the negative sociality produced by having independent opinions and, again echoed gendered notions of feminine submissiveness in her concern about not showing off by having the wrong kind of critical voice. Both Camille and Ellie did not want to become 'a body that seems to get in the way' (Ahmed, 2014a, no page), telling us something about how critical bodies are regulated through the circulation of affects, particularly the intensities of the killjoy persona.

Ahmed allows us to position Ellie and Camille's articulation of killjoy criticality and the embodiment of the critical thinker within histories of marginalised bodies and their access to critical discourses. In talking about the ways speakers within institutions become heard as legitimate, Ahmed (2012) states that 'some more than others are given a place at the table, just as some more than others are at home in the body of an institution' (p. 122). Similarly, criticality settles more comfortably on some bodies than others and the figure of the critical thinker is continually reimagined through the masculine (as well as the privileged, older and White) body. For example, when I asked students in the interview how they became critical thinkers, the majority named the influence of an educated male figure. Of the 10 students who mentioned a specific person 7 named their Dad, 1 a male theorist and 1 a male friend. Only one student named her Mum. Furthermore in their explanations of the characteristics of a critical thinker, students were powerfully drawn towards stories of patient, wise men, revealing the gendered nature of critical stereotypes. Becoming critical, while it may be usefully conceptualised as a vibrant human-material-discursive-phenomena, is also intimately entangled with the assemblage of ways bodies are unequally positioned as powerful/powerless within the academy and the affects this reproduces.

Therefore Ahmed allows me to think through the politics of how critical thinking's affects circulate, settle and are entangled with the world and its relations. Specifically, she offers a powerful articulation of how the circularity of affect reproduces normative discourses of what it means to be and do critical and who is allowed to be so.

### **Thinking with Barad and Ahmed**

Barad's theorisations (2007) are helpful in mapping the ways affects and bodies circulate in relation to criticality and how critical bodies are produced intra-actively through the world in its becoming. Ahmed (2010, 2012) offers tools to consider what (and who) gets stuck behind the assemblage of factors informing how critical voices get reproduced. Considered alongside each other, they allow me to conceptualise the non-linear vibrancy of critical thinking in the classroom whilst recognising that such complexity settles differently upon different bodies. Whilst Barad and Ahmed's work is intellectually productive for thinking with critical thinking, it also creates clashes. Some of these debates have been rehearsed in the literature (Ahmed, 2008, Davis, 2009, Barad, 2012a, Ahmed, 2014b). In particular, Barad and Ahmed appear to differ in their relative positioning of the conceptual importance of materiality in relation to language, as well as in the notion that a focus on materiality in feminist research is 'new'. Secondly, they differ ontologically in their understanding of the relationship between affect and bodies. Thirdly, they differ in their substantive focus; leading to a fourth conceptual difference in relation to their levels of engagement with what critical thinking is and should be for.

Ahmed (2008) is critical of the gesture of 'newness' in new materialist thinking, positing that feminist theory has always been deeply engaged with the body. She explores the politics behind the gesture of newness as being a 'gift' to the feminist field, creating boundaries of inclusion/exclusion as well as feelings of gratitude, which may be misplaced. More specifically she wonders whether feminist work is better focused on the 'complexity of the relationship between materiality and culture' (2008, p. 33) rather than arguments about the relative place of materiality in relation to the social or linguistic paradigms. In response to Ahmed, Davis (2009) argues that Ahmed's critique of the bio-phobia of some aspects of feminism is based on the separability of the social

and material, whereas new materialism argues that they are entangled. As Lenz Taguchi (2013) argues, attributing some degree of agency to matter is what differentiates ‘new’ material feminisms from ‘renewed’ materialist accounts. However, Ahmed’s recent work beautifully explores the vibrancy of materiality through, a short essay on affect as an atmosphere (Ahmed, 2014a). Here, the focus is on social relations and their ability to produce and be produced by affective atmospheres, thus exploring the intimately entangled relationship between materiality and social relations. Yet unlike Barad, Ahmed’s work is less about focusing on philosophical questions of matter’s relative position, but on exploring the micro-politics of the everyday – matter included. Indeed, there is a sense in which matter has the potential to become a fetish object that is reified, at the expense of analyses that recognise its entanglement with the social and discursive.

Ahmed and Barad also have clashing ontological foci in relation to ideas about affect and bodies. For Ahmed, affects are produced through the lived experience of bodies being shaped/reshaped through the discursive and social. For example, her work on happiness (2010) discusses the way affects both flow from bodies and how the circulation of these affects shape bodies along normative lines. However, for Barad, affect is not a stand-alone ‘feeling’ that can be attributed to the discursive or social or human realms of experience but a relationship that emerges through the entanglement of the human-material-discursive. Affects do not so much belong to specific bodies but flow intra-actively between them (Barad, 2007). This raises questions about whether criticality’s affects are produced from bodies as a consequence of their circulation in the social or through bodies intra-actions with the world in its becoming. Crucially, both analyses recognise the complex and contingent nature of critical thinking as a knowledge practice entangled in social, material and discursive relations, as well as the

ways its intense affects have pedagogical consequences for students' feelings about becoming a critical thinker.

A further clear difference between Barad and Ahmed is that their topics of focus potentially require different theoretical frames. Theorists such as Ahmed who focus on the centrality of how the queer, raced, classed and gendered body is produced by, and interacts with, the world and its texts focus on the power of discourses much more than Barad's theoretical physics and feminist philosophy does. Similarly, where critical thinking gets described as '*what makes us human*' (Camille, Interview) it is conceptually difficult not to prioritise the body and social relations. This is perhaps also influenced by the dominance of traditional qualitative research paradigms within feminist research, including my own, that focus on the words of others, a tension explored by MacLure (2013). However Barad's (2003) claim that 'language has been granted too much power' (p. 801) is important as a provocation to (re)invigorate work on materiality in the social sciences and humanities. In educational settings, it makes us think about the role of spaces and places, the material world around us and the role of 'thing power' (Bennett, 2004). Arguably, challenging the taken for granted, nudging the human away from its all too comfortable position and destabilising essentialist understandings of what it means to be human is what unites both Ahmed and Barad's theoretical disruptions.

Barad and Ahmed do also engage in direct debate over the definition and role of criticality. Barad (2012a) claims that her students can 'spit out a critique with the push of a button' because critical thinking is conceptualised as a disembodied technology, 'a practice of negativity that I think is about subtraction, distancing and othering'. Instead she asks us to engage in criticality via 'respectful, detailed, ethical engagements' using a methodology of 'reading diffractively for patterns of differences that make a difference'

(Barad, 2012a, p. 49). Ahmed (2014b) responds to Barad's frustration with her students' surface performances of critical thinking by saying 'I doubt very much that critiquing whiteness is something students have learnt to spit out. In fact, much of what needs critiquing still seems to go unnoticed' (no page). What matters to Ahmed is not simply what critique is, but the direction towards which it is put to work. Ahmed's philosophy of criticality is named as being directly political; engaging in discursive disruption and re-imagination with the ways inequality is marked on the queer body. Yet while Ahmed wishes to reclaim deconstruction (or being a killjoy) as a productive philosophy, both Ahmed and Barad are united in their call for a feminist inspired critical thinking that recognises the way being critical is embodied and entangled within the world.

This debate over 'ethics' versus 'politics' relates to broader concerns about material feminist philosophies. While Braidotti's (1996) important argument that a post humanist, materialist ontology provides political and conceptual space for those who have, thus far, not 'profited from the entitlements of subjectivity' (p. 301), Fox and Alldred (2013) state that important questions remain whether this 'inevitably separates sociology from struggles of people for...emancipatory identity positions' (p. 783). For example, while post-human philosophies are intellectually exciting, something feels troubling in this current political context of higher education. Taken in their crudest form, understanding education an assemblage of human-material-discursive is perhaps politically convenient in relation to neo-liberal discourses of post-equality where attention can be drawn away from the micro-politics of everyday inequalities to abstract understandings of the organic flows of the social order. Indeed, the material and discursive consequences of embodying certain identities within the academy are still noteworthy. For example, Phipps and Young's (2013) work on lad cultures in higher education suggests that there are still spatial and physical penalties for being a female



student. I therefore share Ahmed's (2013) concern that the hope invested in terms such as becoming or the assemblage is troubling if it produces a context in which categories such as race or gender become associated with intellectual stagnation.

Furthermore, conceptualising the importance of 'things' feels at odds with philosophies of education that are opposed to consumerist discourses of knowledge where 'people' are being replaced by 'product', particularly when philosophies of materiality appear separate to Marxist engagements with the material as understood in economic terms. That a post-human response to, for example, the privatisation of education feels out of reach is likely a limit of my own imagination. Yet this is significant given the prevalence of neo-liberalism and marketisation in the academy and potentially constraining impact, as Evans (2004) describes, on practices of critical thinking and political resistance. There is certainly the potential in Barad's work, for example, to look at educational practices as human-material-discursive as well as to focus on the reproduction of inequality by becoming 'attentive to what gets excluded as well as what comes to matter' (Barad, 2012a, p.52). For example, this has been sophisticatedly done in Morley's (2015) work on intra-action and the production of gendered inequality through the concept of research quality.

This paper is therefore a recognition that more than one lens might be required in thinking about critical thinking's affective intensities and that new materialist theories and post-structural phenomenological approaches can be used productively to unpack the complexity of the relations, bodies and materialities of critical thinking's affects, as well as their historical, social and cultural situatedness. Indeed, the spirit of both their work invites theories to 'speak back' to each other (Ahmed, 1998) and to read texts together 'diffractively' to identify connections and clashes (Barad, 2007). Consequently, thought alongside each other, Barad and Ahmed unpack the micro-

political challenges involved in becoming critical in higher education and how critical thinking is a relation of entanglement with the material, social and discursive.

### **Critical thinking – new imaginaries?**

Critical thinking is not a disembodied technology of individualised bodies but a set of embodied practices that interact with the world and its relations. What this paper specifically emphasises is that it is also an intensely affective process. Students' anxieties about doing critical thinking right and in the right context, specifically their concerns about critique 'spilling' from the textual to the social and personal reveal the complex affects of thinking about, doing and being critical. That one student in the observation of the academic class remarked '*we don't have anything critical to say, we really liked it*' reveals the affective intensities of embodying specific form of criticality. For example, that the killjoy persona is one that is highly gendered reveals how criticality's affects shape the production of critical voices as being 'natural' or legitimate. Therefore a critical troubling of critical thinking, or indeed similar taken for granted discourses of teaching and learning in higher education, should focus on what it feels like and how these feelings might get produced in and through specific bodies, as well as it is and what it is for.

Berlant (2004), in her discussion of how criticality tends to be 'smart, abstract and slightly over absorbed' (p. 447), asks that we pay more attention to the role of the senses in critical thinking. Doing so is not simply analytically productive but can create new imaginaries for feminist critical thinking. Firstly, recognising the embodied and the affective sense of critical thinking prompts searching for feminist and ethically sensitive forms of critique that recognise and make conceptual use of critical thinking's affects. For example, Ahmed's (2014b) work is keen to reclaim anger as analytically and

politically productive. Secondly, bringing the emotions of critical thinking forth further undermines the binary that persists between thoughts and feelings. If a key feminist concern is to make the personal political, focus should be directed to what it means to think/feel and how these thoughts/feelings are produced through and by the world in its continual and dynamic unfolding. Finally, as Quinn (2013) argues, one of the strengths of a post-human perspective is:

It reveals the interconnectedness of all matter, so that the project of learning becomes not what distinguished me from all that is around me and makes me superior to it, but what makes me part of it (p. 742)

If we conceptualise critical thinking not as the product of detached, 'reasoned' bodies competing with each other for intellectual supremacy but of embodied learners entangled with the world and produced through its affects, we open up space to see the imperfection of all views of the world and subsequently create pedagogical contexts that generate questions about how we are co-entangled and co-implicated.

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